Spirometric Values of Patients with Chronic Obstructive Pulmonary Disease in Dr. Hasan Sadikin General Hospital Bandung Year 2014

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Abstract

Background: Chronic obstructive pulmonary disease (COPD) is a frequently underdiagnosed disease. Definitive diagnosis of COPD is made using spirometry as a tool to evaluate pulmonary function by evaluation according to the cut off points of several spirometric values. This study aimed to describe the spirometric values of COPD patients in order to aid in diagnosis of COPD.

Methods: A descriptive study was conducted in Dr. Hasan Sadikin General Hospital Bandung from October 2015 to November 2015. Spirometric values consisted of forced expiratory volume in one second (FEV1), forced vital capacity (FVC), and FEV1/FVC ratio. Sixty eight samples consisted of 48 male and 20 female patients diagnosed with COPD during year 2014 were collected with prior ethical clearance from Department of Respirology for data collection after matched with inclusion and exclusion criteria.

Results: The mean predicted (L), result (L), and percent predicted (%) FEV1 are 2.49±0.42, 1.24±0.53, and 49.72±17.79 respectively. The range predicted, result, and percent predicted FVC are 1.92–4.07, 0.70–2.78, and 22.80–96.03 respectively. The median predicted, result, and percent predicted FVC are 3.37, 1.76, 55.90 respectively. The mean FEV1/FVC ratio is 0.70±0.12.

Conclusion: Most of the patients are classified in GOLD 2 (moderate COPD).

Keywords: Chronic obstructive pulmonary disease, forced expiratory volume in one second, forced expiratory volume in one second/forced vital capacity, forced vital capacity, spirometry